ARGUMENTS

The specification has been amended to correct minor punctuation errors and to add section headings in accordance with 37 C.F.R. § 1.77. The Abstract of the Disclosure has been amended to comply with MPEP § 608.01(b).

Figure 3 of the drawings has been amended to correct a typographical error. With respect to the Examiner's objection to Figure 1 (Office Action, dated April 7, 2004, page 2, lines 3 and 4), Applicants point out that the amplifying means (8) described on page 3, line 6, of the specification is already clearly shown in Figure 1.

Claims 1-6 have been amended and new claim 7 added. Specifically, claims 1-6 have been amended so as to particularly point out and distinctly claim the invention in compliance with 35 U.S.C. § 112. New claim 7 depends upon claim 1 and recites that the "electric power supply is a battery" as supported by original claim 1.

The present amendment adds no new matter to the application.

The Invention

The present invention pertains broadly to an active transponder device associated with identification systems or transaction systems of various natures. More particularly, in a first embodiment in accordance with the present invention, an active transponder is provided that includes: (a) an electronic unit arranged so as to control several applications or operating modes; (b) an antenna for receiving incoming signals; and (c) an electric power supply connected to said electronic unit, wherein said electronic unit includes: (d) a data processing unit, (e) means for amplifying incoming signals received by said antenna, and (f) means for validating the incoming signals as a function of mean induced voltages in said antenna, and wherein the data processing unit includes means for varying the maximum communication

distance to a reader or transceiver.

Various other embodiments in accordance with the present invention are recited in the dependant claims. An advantage of the present invention as claimed is that an active transponder is provided that solves the security problem associated with multi-application active transponders by varying the maximum communication distance between the transponder and a reader or transceiver.

The Rejection

Claims 1, 3, 4 and 6 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 1-6 stand rejected under 35 U.S.C. § 102(b) as anticipated by Tarbouriech (GB 2,321,746 A).

Applicants respectfully traverse the rejection and request reconsideration of the application for the following reasons.

Applicants' Arguments

In view of the present amendment, claims 1-7 are now in compliance with 35 U.S.C. § 112.

In order to establish anticipation in a single prior art reference, the reference must disclose the presence of each and every element in the claimed invention, arranged as in the claim. Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984).

The Prior Art Reference: GB 2,321,746

GB 2,321,746 A to Tarbouriech (hereafter, the Tarbouriech reference) teaches a "portable data carrier operating method" and a circuit suitable for carrying out this method (See Figures 2 and 3). The power circuit (10) diagrammed in Figure 2 includes a power source (11) connected to a power level monitor (12) and to a regulator (19), which has two power output terminals (21). The power source (11) could be an external battery (page 2, lines 3-35), or a receiving coil (26) as shown in Figure 3. When the receiving coil (26) is employed as the power source (11), it is a component in an LC inductance circuit and is capable of receiving transmitted power signals (page 3, lines 28-34); however, there is nothing in the Tarbouriech reference to teach, or suggest, that the receiving coil (26) can receive data signals.

The power level monitor (12), which monitors the level of power that is coupled to the portable data carrier (page 3, lines 1-4), is connected to send an output to power level detection circuit (13). Power level detection circuit (13) is connected to send output to control interface (17), which sends output used to control circuitry that facilitates performing operations and transactions within the portable data carrier (page 3, lines 22-27).

The Examiner asserts that the Tarbouriech reference teaches a transponder comprising an antenna, provided by receiving coil (26), for inductive coupling between the transponder and the reader device so as to power the circuitry of the transponder (Office Action dated April 7, 2004, page 4, lines 9-11). However, claim 1 in accordance with the present invention recites an "active transponder" that includes (a) "an electronic unit," (b) "an antenna for receiving incoming signals," and (c) "an electric power supply connected to said electronic unit."

Tarbouriech teaches that the power source (11) is either a battery (page 2, lines 3-35)

or a tuned LC circuit that includes receiving coil (26), (page 3, lines 31-34). Tarbouriech neither teaches, nor suggests, that the power circuit (10) has both a battery and a receiving coil. Instead, what Tarbouriech teaches is that when the power source (11) is a battery, the power circuit (10) has no receiving coil. In this embodiment, there would be no "antenna."

On the other hand, when the power source is a receiving coil (26) of an LC circuit, the device is not an "active transponder" as recited by claim 1. Instead, it is a passive circuit receiving power from a remote source (page 3, lines 31-34). The present specification expressly distinguishes "passive transponders which draw their energy from received electromagnetic signals" from an "active transponder" which "has an internal electric power supply which powers the electronic circuits independently of the level of induced voltage in the antenna of the transponder" (present specification, page 1, lines 5-8).

However, these are not the only deficiencies in the teachings provided by the Tarbouriech reference. The control interface (17) taught by Tarbouriech is not an "electronic unit arranged so as to control several applications or operating modes," wherein the "electronic unit" includes (a) a "data processing unit;" (b) "means for amplifying the incoming signals received by said antenna;" and "means for validating the incoming signals as a function of mean induced voltages in said antenna" as recited in claim 1. In fact, no structure taught in the power circuit (10) of Tarbouriech has these claimed features.

As noted by the Tarbouriech reference, the circuit (10) is solely designed to determine if the amount of coupled power is sufficient to complete a transaction when the transaction is initiated by a portable data carrier, such as carrier (200), (See Abstract, and Figure 4). The power circuit (10) operates solely to determine whether to allow a transaction when there is sufficient power to complete the transaction or to prevent the portable data carrier from initiating a transaction when there is insufficient power to complete the

operation (See Abstract). Consequently, the device taught by the Tarbouriech reference fails to teach, or event suggest "an electronic unit" having the three claimed features described above, as well as many other features of the presently claimed invention.

The carrier (200) that incorporates the power circuit (10) or (30) and logic circuit (202), as taught by Tarbouriech, additionally does not teach, or even suggest, a "means for varying the maximum communication distance" as recited in claim 1.

Conclusion

Claims 1-7 are now in compliance with 35 U.S.C. § 112. In addition, the rejection of claims 1-7 under 35 U.S.C. § 102(b) as anticipated by the Tarbouriech reference is manifestly untenable and should be withdrawn because the reference fails to teach each and every limitation arranged as in the claims. In particular, the Tarbouriech reference teaches either an active power circuit that lacks an "antenna" or a passive power circuit that is not an "active transponder." Furthermore, the reference fails to teach an "electronic unit" that includes (a) a "data processing unit," (b) "means for amplifying incoming signals received by said antenna," and (c) "means for validating incoming signals as a function of mean induced voltages in said antenna," wherein the "data processing unit" includes (d) "means for varying the maximum communication distance" as recited in claim 1.

For all of the reasons stated above, claims 1-7 are in condition for allowance and a prompt notice of allowance is earnestly solicited. Questions are welcomed by the below signed attorney for the Applicants.

Respectfully submitted,

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Fig. 1

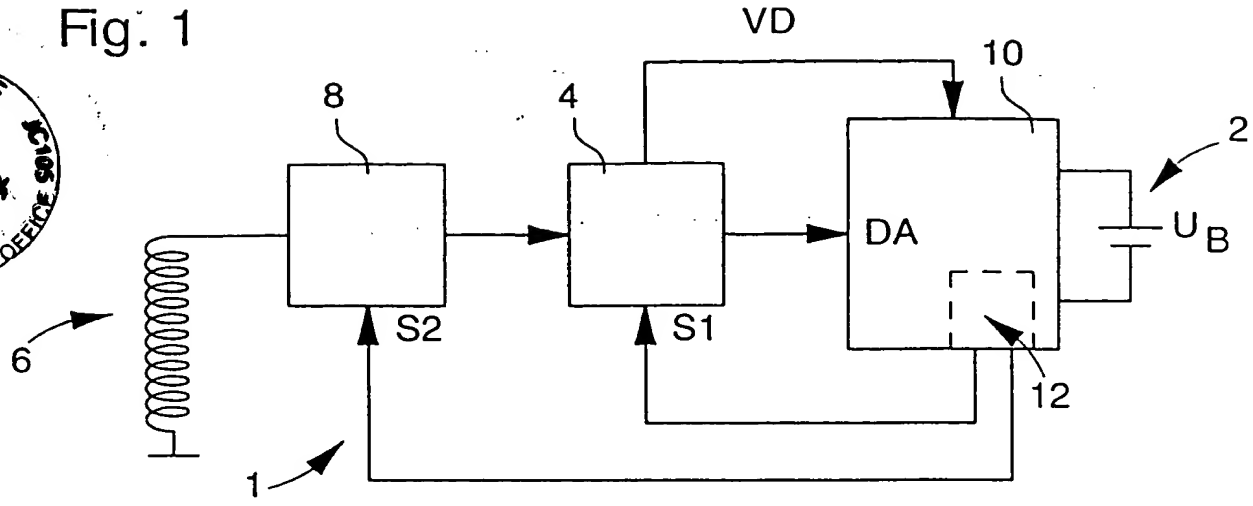

Fig. 2

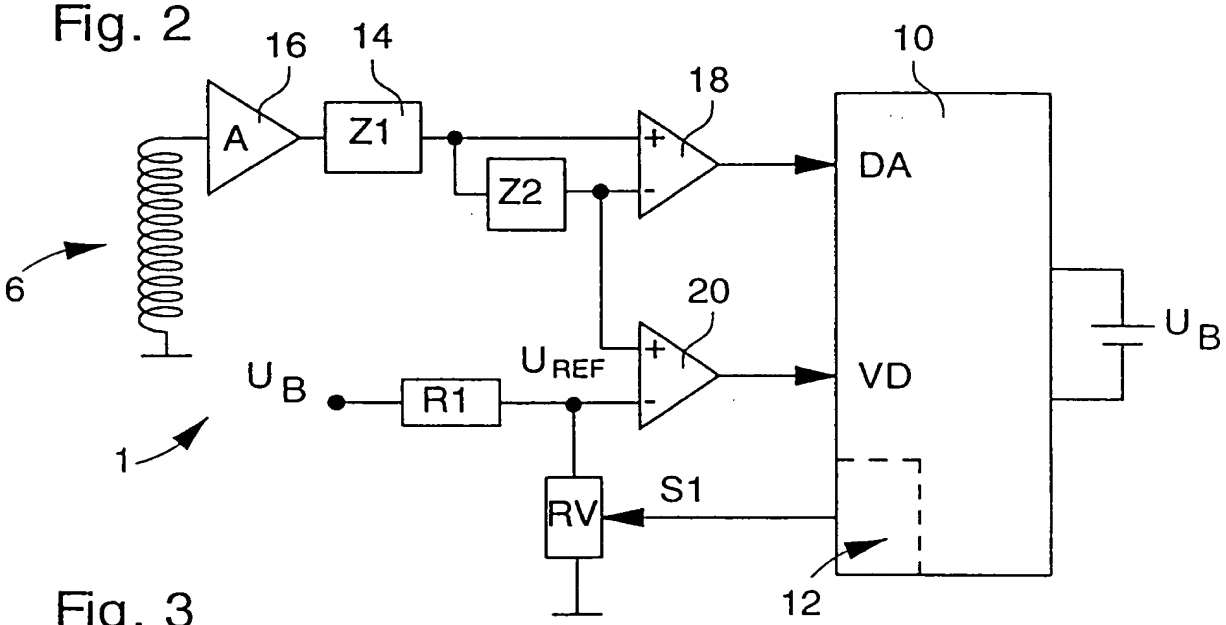

Fig. 3